

Requirement ID: 188

Sponsor Organization: ASW

POC: Lorry Faber

Requirement Title: NVG resolution requirement

Funded Requirement:

- FY01: No
- FY02: Yes
- FY03: No
- FY04: No

Requirement Statement: This research will validate and expand the draft AC material in Part 27 and Part 29 concerning NVG certification for rotorcraft civil operations as well as the draft TSO concerning Night Vision Goggles. This material only suggests a minimum NVG resolution requirement that many European manufacturers and US civil operators are too stringent. The requirement was written because no data exists as to the existing acceptable resolution for human being for safe NVG flight. The requirement was a consensus decision based on NVG manufacturer statistics of current product use which did not include a wide variety of resolution levels. However, without this research there is uncertainty if another means may be safe to an overall NVG operation. This research is using the aid of the US military since they too have agreed that alternate methods need to be explored for cost and immediate implementation. Three NVG civil certifications already exist for a FAR Part 27/29 rotorcraft flying under FAR Part 135 operations, with more to follow. Research and potentially flight testing is required immediately so the appropriate alternate resolutions for NVGs can be justified when requested.

Background: This need stems from recent approval for specific civilian use of NVG and the recent completion of the RTCA SC-196 Minimum Operational Performance Standards. Examination of use in expected civilian operations as compared with military operational data to determine specific problems that may be associated with device use (CAMI proposed this examination originally in 1995). This research will contribute to formulating an AC and Noticed for Proposed Rulemaking (NPRM) for civil operations for general aviation and rotorcraft for NVG certification and operations. Also, a Technical Standard Order is needed for the Night Vision Goggle equipment. There is currently no guidance for NVG's except for military specifications and regulations which may not be adequate for civil use. Three NVG civil certifications already exist for a FAR Part 27/29 rotorcraft flying under FAR Part 135 operations. There are other supplemental type certificate applications concerning NVG usage as well as waivers to the operating rules. Research and potentially flight testing is required immediately so the appropriate regulatory statements are written and adopted.

Output: detection model; Regulatory Link: